

# **Auger-mediated sticking of positrons to surfaces: Evidence for a single-step transition from a scattering state to a surface image Potential bound State**

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## **Abstract**

We present the observation of an efficient mechanism for positron sticking to surfaces termed here Auger-mediated sticking. In this process the energy associated with the positrons transition from an unbound scattering state to a bound image potential state is coupled to a valence electron which can then have sufficient energy to leave the surface. Compelling evidence for this mechanism is found in a narrow secondary electron peak observed at incident positron kinetic energies well below the electron work function. © 2010 The American Physical Society.

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